

WHAT IS CLAIMED IS:

1. An infrared transmission system for identifying a selected type of internal code contained in information sent from a sender device, a process in said system comprising:

- 5 checking whether said value of each character contained in said sent information is within a default range of a predetermined internal code;
 discarding said internal code having value other than said default range;
 performing an conversion and an analysis on said qualified information based on said value of said internal code thereof;
- 10 selecting said non-frequently used and qualified type of said internal code as said type of internal code;
 converting said received information into one having said type of said internal code compatible to a recipient device; and
 displaying said converted information at said recipient device.

15 2. The system of claim 1, wherein said infrared transmission system is implemented as an electronic device having an infrared transmission capability.

3. The system of claim 2, wherein said electronic device is a personal digital assistant.

4. The system of claim 2, wherein said electronic device is a mobile phone.

20 5. The system of claim 1, wherein said infrared transmission system comprises:

- an infrared communication module for communicating with said sender device so as to receive information sent from the sender device through an infrared transmission protocol and an infrared device and maintain said integrity
- 25 of said sent information, said infrared device being operable for effecting a data communication, and said infrared transmission protocol for effecting a reliable information transmission;

an analysis control module for analyzing said received information, for identifying said type of said internal code used, and converting it into a type of internal code identifiable by said recipient device;

5 a central processing module for performing a calculation oriented process based on instructions sent from said analysis control module and sending back said calculation result to said analysis control module;

10 a storage module for storing data required by said analysis control module when said central processing module performs a calculation, said storage module being implemented as random access memory (RAM) and read only memory (ROM), said RAM being operable to store information related to a control and a calculation processes and said ROM being operable to store permanent information; and

a display module for decoding and showing said type of said internal code received from said recipient device.

15 6. The system of claim 5, wherein said display module is a liquid crystal display (LCD).

7. The system of claim 5, further comprising a conversion table in said ROM for converting said received information into one having said type of said internal code compatible to said recipient device.

20 8. The system of claim 7, further comprising an identification table in said RAM for storing:

all said types of internal codes;

said length of said information corresponding to said respective type of said internal code; and

25 said number of non-frequently used words in said information corresponding to said respective type of said internal code.

9. The system of claim 8, wherein said identification table utilizes said stored

information for performing the steps of:

(a) sequentially selecting a type of internal code from said identification table;

(b) sequentially reading a character from said received information;

5 (c) analyzing said character in order to determine whether said value thereof is within said range of said selected type of said internal code;

(d) determining whether said character is one of frequently used characters of said selected type of said internal code;

(e) recording said frequently used character if the result in said step (d) is
10 positive and looping back to said step (b) irrespective of said result in said step (d);

(f) determining whether there is any of said unselected type of said internal code and looping back to said step (a) if said result is positive; and

(g) converting said information with respect to said types of said internal
15 codes, analyzing said occurrence frequency of said recorded non-frequently used words, selecting said type of said internal code which is among said non-frequently used words and has a value within said value range of said type of said internal code, and converting said received type of said internal code into one corresponding to said type of said internal code of said recipient device
20 based on said conversion table.